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# NOTICE OF ALLOWANCE AND FEE(S) DUE

20277 7590 04/17/2009 MCDERMOTT WILL & EMERY LLP 600 13TH STREET, N.W. WASHINGTON. DC 20005-3096 EXAMINER
CANTIELMO, ORICOG
ART UNIT PAPER NUMBER
1795

DATE MAILED: 04/17/2009

| APPLICATION NO.                | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--------------------------------|-------------|----------------------|---------------------|------------------|
| 10/550,609                     | 09/23/2005  | Shugo Higashi        | 050340-0192         | 1370             |
| THE CONVENTION, THE CHI CYCTEM |             |                      |                     |                  |

| APPLN, TYPE    | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE   |
|----------------|--------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | NO           | \$1510        | \$300               | \$0                  | \$1810           | 07/17/2009 |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

# HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FIEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

## PART B - FEE(S) TRANSMITTAL

# Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

| appropriate. All further<br>indicated unless correcte<br>maintenance fee notifical  | correspondence includir<br>ed below or directed oth  | or transmitting the 188<br>ig the Patent, advance of<br>herwise in Block 1, by   | orders and notification of a<br>(a) specifying a new corre  | naintenance fees wil<br>spondence address; a   | I be mailed to the current<br>nd/or (b) indicating a sep  | snould be completed where<br>t correspondence address as<br>arate "FEE ADDRESS" for   |  |
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| CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)  |  |  | Not<br>Fee<br>pap<br>hav  | Note: A certificate of mailing can only be used for domestic mailings of the<br>Fee(s) Transmittal. This certificate cannot be used for any other accompanying<br>papers. Each additional paper, such as an assignment or formal drawing, must<br>have its own certificate of mailing or transmission. |   |   |  |
| 600 13TH STRE   | 7590 04/17<br>IT WILL & EMER<br>ET, N.W.<br>I, DC 20005-3096   |  |   | Contil   | icate of Mailing or Trans   |   |  |
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|   |  |  | <u> </u>  |  |   | (Signature)   |  |
|   |  |  | L   |  |   | (Date)  |  |
| APPLICATION NO.   | FILING DATE  |  | FIRST NAMED INVENTOR  | . /  | ATTORNEY DOCKET NO.   | CONFIRMATION NO.  |  |
| 10/550,609<br>TITLE OF INVENTION  | 09/23/2005<br>: FUEL CELL SYSTEM   | 1  | Shugo Higashi   |  | 050340-0192   | 1370  |  |
| APPLN, TYPE   | SMALL ENTITY   | ISSUE FEE DUE  | PUBLICATION FEE DUE   | PREV. PAID ISSUE I   | TEE TOTAL FEE(S) DUE  | DATE DUE  |  |
| nonprovisional  | NO   | \$1510   | \$300   | \$0  | \$1810  | 07/17/2009  |  |
| EXAM  | INER   | ART UNIT   | CLASS-SUBCLASS  | 1  |   |   |  |
| CANTELM   | O, GREGG   | 1795   | 429-026000  | •  |   |   |  |
| "Fee Address" ind. PTO/SB/47; Rev 03-0 Number is required.  3. ASSIGNEE NAME A  | ondence address (or Cha<br>3/122) attached.<br>ication (or "Fee Address<br>12 or more recent) attach<br>ND RESIDENCE DATZ<br>less an assignee is ident<br>h in 37 CFR 3.II. Comp | inge of Correspondence  Indication form and. Use of a Customer  A TO BE PRINTED ON   | 2. For printing on the p (I) the names of up to or agents OR, alternati (2) the name of a single registered attorney or 2 registered attorney or 2 registered patent atto listed, no name will be THE PATENT (print or typ data will appear on the p DT a substitute for filing an (B) RESIDENCE: (CTTY | 3 registered patent avely, et firm (having as a nagent) and the names rneys or agents. If no printed.  bec) atent. If an assignee assignment.  | nember a 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2  | document has been filed for   |  |
| Please check the appropri   | iate assignee category or  | categories (will not be p  | printed on the patent):   | Individual 🖵 Corp  | poration or other private gr  | oup entity Government   |  |
| 4a. The following fee(s):  Issue Fee Publication Fee (N   | o small entity discount p  |  | tb. Payment of Fee(s): (Plea A check is enclosed. Payment by credit car The Director is hereby overpayment, to Depo   | d. Form PTO-2038 i   | s attached.   | shown above)  eficiency, or credit any un extra copy of this form).   |  |
|   | s SMALL ENTITY state   | as. See 37 CFR 1.27.   |   |  | ENTITY status. Sec 37 C   |   |  |
| NOTE: The Issue Fee an<br>interest as shown by the  | d Publication Fee (if req<br>records of the United Sta   | uired) will not be accept<br>ites Patent and Trademar  | ed from anyone other than t<br>k Office.  | he applicant; a registe  | ered attorney or agent; or t  | he assignee or other party in   |  |
| Authorized Signature  |  |  |   | Date   |   |   |  |
| Typed or printed name   |  |  | Registration No.  |  |   |   |  |
| This collection of inform<br>an application. Confident<br>submitting the complete<br>this form and/or suggesti<br>Box 1450, Alexandria, V<br>Alexandria, Virginia 223 | ation is required by 37 C<br>tiality is governed by 35<br>d application form to the<br>ons for reducing this but<br>firginia 22313-1450. DC<br>13-1450.                          | CFR 1.311. The informat<br>U.S.C. 122 and 37 CFR<br>USPTO. Time will var<br>rden, should be sent to to<br>O NOT SEND FEES OR | ion is required to obtain or r<br>1.14. This collection is est<br>y depending upon the indivi-<br>he Chief Information Office<br>COMPLETED FORMS To   | retain a benefit by the<br>timated to take 12 mi<br>ridual case. Any com<br>er, U.S. Patent and Ti<br>D THIS ADDRESS.  | public which is to file (an<br>nutes to complete, includi<br>ments on the amount of ti<br>ademark Office, U.S. Dep<br>SEND TO: Commissioner | d by the USPTO to process)<br>ng gathering, preparing, and<br>me you require to complete<br>sartment of Commerce, P.O.<br>for Patents, P.O. Box 1450, |  |

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# UNITED STATES PATENT AND TRADEMARK OFFICE

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| APPLICATION NO.                                    | FILING DATE   | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/550,609 09/23/2005                              |               | Shugo Higashi        | 050340-0192 1370    |                  |
| 20277 75   | 90 04/17/2009 |                      | EXAM                | IINER            |
| MCDERMOTT WILL & EMERY LLP                         |               |                      | CANTELM             | O, GREGG         |
| 600 13TH STREET, N.W.<br>WASHINGTON, DC 20005-3096 |               |                      | ART UNIT            | PAPER NUMBER     |
|  |               |                      | 1795                |                  |

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 753 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 753 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

# Notice of Allowability

| Application No. | Applicant(s)   |  |
|-----------------|----------------|--|
| 10/550,609      | HIGASHI, SHUGO |  |
| Examiner        | Art Unit       |  |
| Gregg Cantelmo  | 1795           |  |

| - The MAILING DATE of this communication appears on All claims being allowable, PROSECUTION ON THE MERITS IS (OR REnerwith (or previously mailed), a Notice of Allowance (PTOL-85) or other NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. Of the Office or upon petition by the applicant. See 37 CFR. 13/3 and MR   | MAINS) CLOSED in this application. If not included appropriate communication will be mailed in due course. THIS This application is subject to withdrawal from issue at the initiate. |
|--|---|
| <ol> <li>This communication is responsive to <u>3/13/09</u>.</li> </ol>  |   |
| 2. ☑ The allowed claim(s) is/are <u>1-13</u> .   |   |
| 3.   | eceived. sceived in Application No have been received in this national stage application from the   |
| 4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. No INFORMAL PATENT APPLICATION (PTO-152) which gives reaso 5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be sub- (a) ☐ including changes required by the Notice of Draftsperson's Pail 1) ☐ hereto or 2) ☐ to Paper No J/Mail Date  (b) ☐ including changes required by the attached Examiner's Amenc | n(s) why the oath or declaration is deficient.<br>mitted.<br>ent Drawing Review ( PTO-948) attached   |
| Apper No./Mail Date  | nould be written on the drawings in the front (not the back) of<br>or according to 37 CFR 1.121(d).  OLOGICAL MATERIAL must be submitted. Note the                                    |
| Attachment(s)  1. Notice of References Cited (PTO-892)  2. Notice of Traditive servits Patent Drawing Review (FTO-945)  3. Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date  4. Examiner's Comment Regarding Requirement for Deposit   | Notice of Informal Patent Application     Interview Surmery (PTO-413)     Paper No./Mail Date     To Examiner's Amendment/Comment     Examiner's Statement of Reasons for Allowance   |
| of Biological Material   | 9.  |
|  |   |

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# DETAILED ACTION

# Response to Amendment

1. In response to the amendment received March 13, 2009:

> Claims 1-13 are pending: a.

The previous specification objection is withdrawn in light of Applicant's

response:

The prior art rejections of record are withdrawn in light of Applicant's

arguments.

3.

# Allowable Subject Matter

2. Claims 1-13 are allowed.

The following is an examiner's statement of reasons for allowance: none of the prior art of record are held to reasonably teach, suggest or render obvious the invention

of claims 1-13. For example, upon further consideration, the prior art rejection of record

is not held to teach of the claimed bypass passage connecting the coolant supply

manifold and the discharge supply manifold, wherein the bypass passage has a larger cross-section than a cross-section of the coolant passages. Yang which does teach of

a bypass passage does not teach of the cross-section relationship as recited in claim 1.

None of the prior art of record are held to reasonably teach, suggest or render obvious

this feature. Therefore the claims appear allowable over the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably Art Unit: 1795

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

# Conclusion

 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregg Cantelmo whose telephone number is 571-272-1283. The examiner can normally be reached on Monday to Thursday, 8:30-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pat Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gregg Cantelmo/ Primary Examiner, Art Unit 1795